FIG. 1

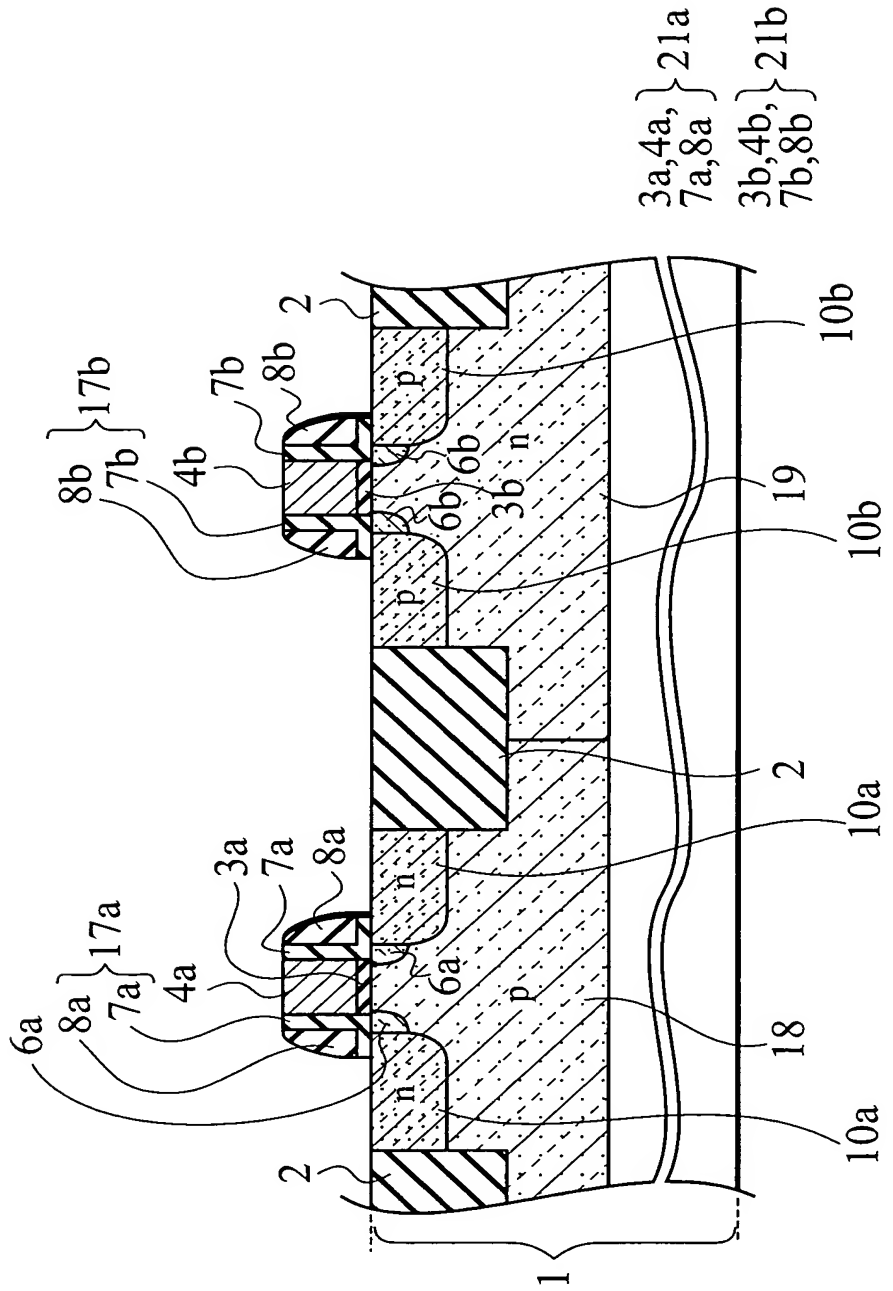
3a,4a,
7a,8a
21a
3b,4b,
7b,8b
21b
17b
8b
7b
4b
8b
7b
2
p
6b
n
3b
6b
19
10b
10b
p
2
10a
3a
7a
8a
17a
4a
6a
8a
7a
n
6a
p
18
n
10a
2
1

FIG. 2A

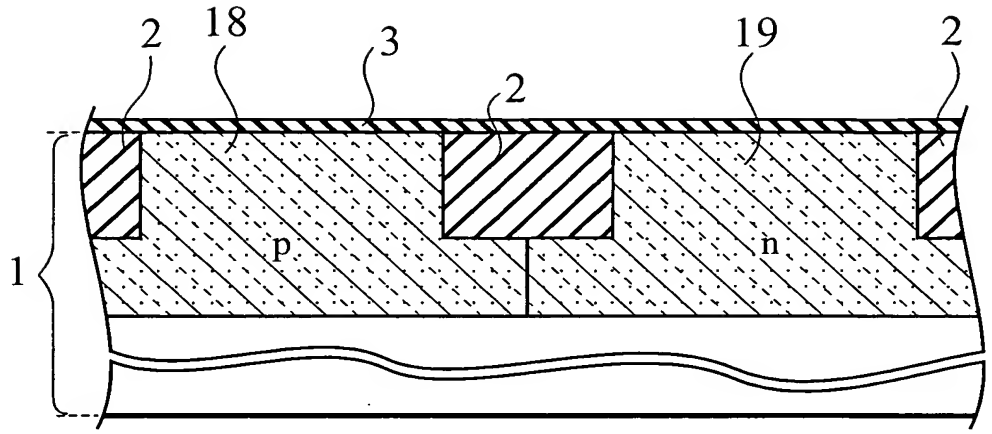

FIG. 2B

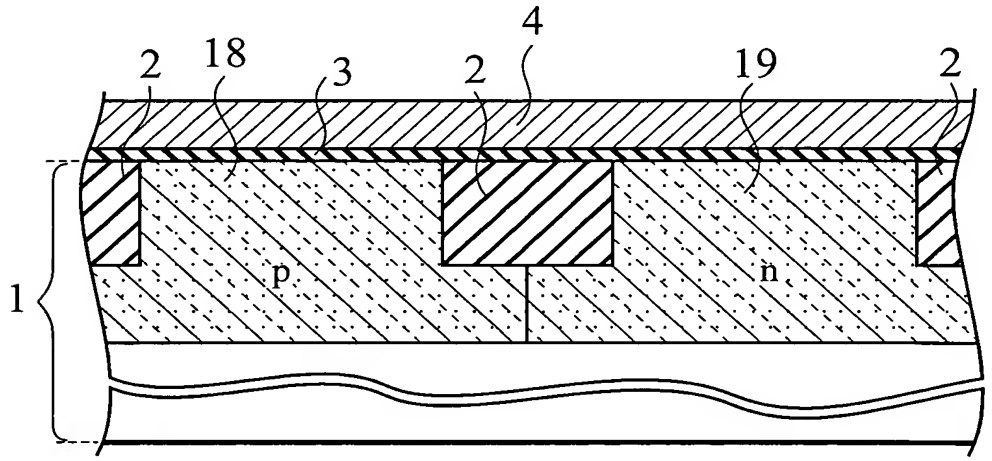

FIG. 2C

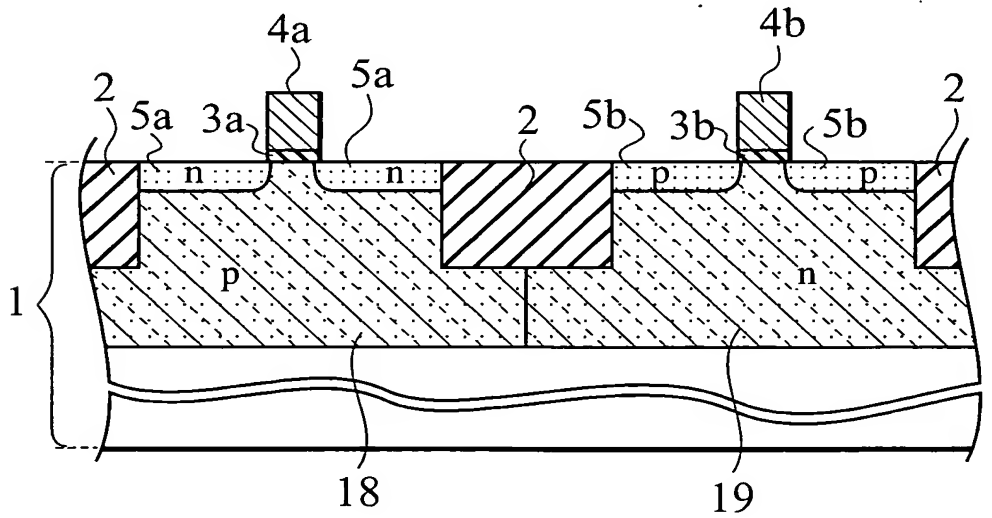

FIG. 3A

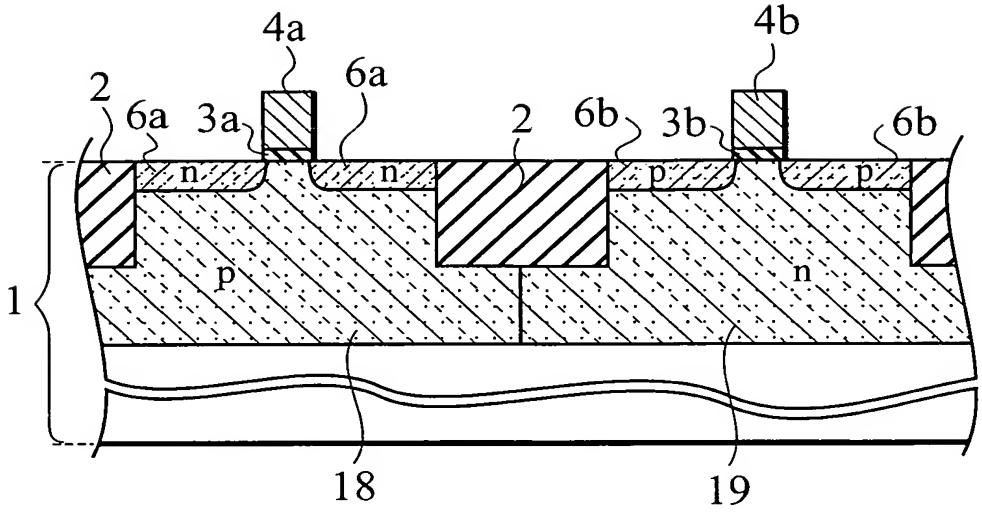
4a
4b
2
6a
3a
6a
2
6b
3b
6b
n
n
p
p
p
n
1
18
19

FIG. 3B

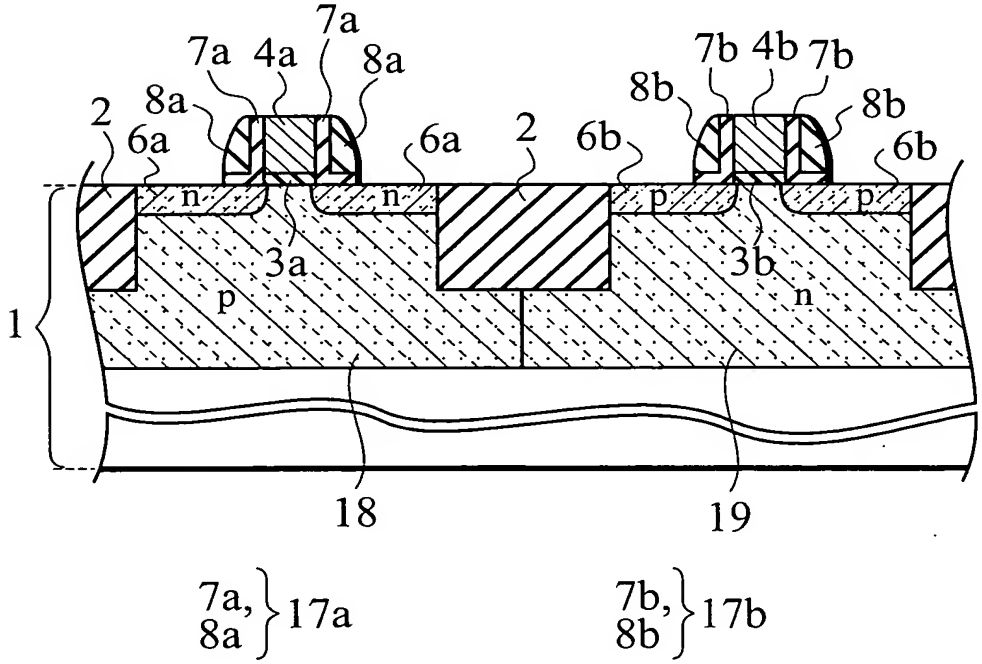
7a
7a
4a
8a
7b
4b
7b
8b
8b
2
8a
6a
6a
2
6b
6b
n
n
p
p
3a
3b
p
n
1
18
19
7a,
8a
17a
7b,
8b
17b

FIG. 4A

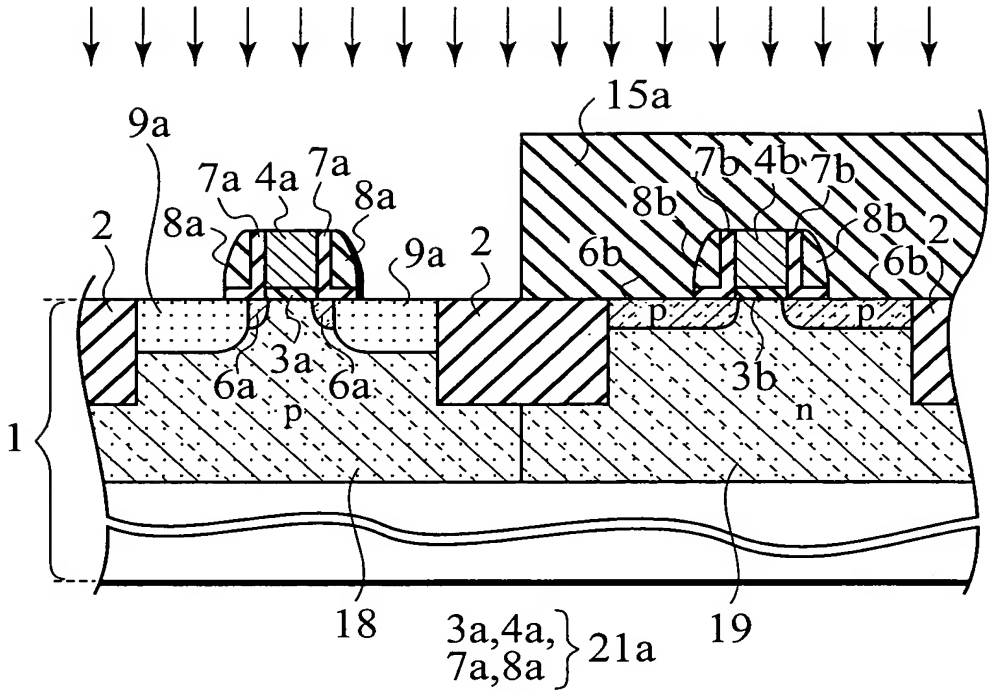
15a
9a
7a 4a 7a
8a
8a
2
9a
2
7b 4b 7b
8b
8b
2
6b
6b
p
p
3a
6a
6a
p
3b
n
1
18
19
3a,4a,
7a,8a
21a

FIG. 4B

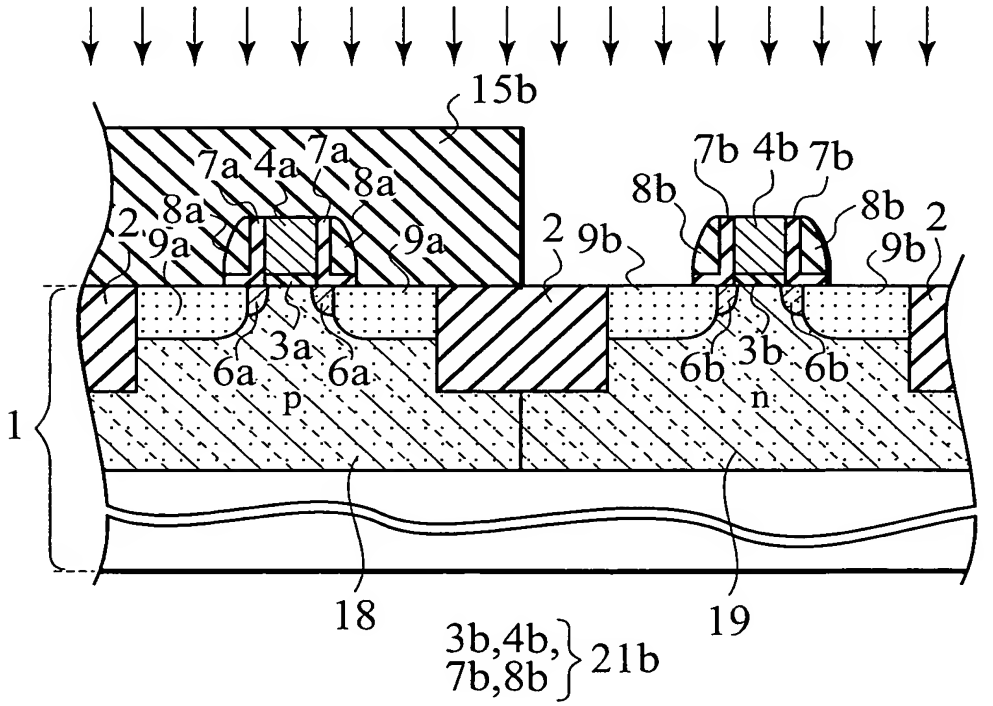
15b
7a 4a 7a
8a
8a
2
9a
9a
2
9b
7b 4b 7b
8b
8b
2
9b
3a
6a
6a
p
6b
3b
6b
n
1
18
19
3b,4b,
7b,8b
21b

FIG. 5

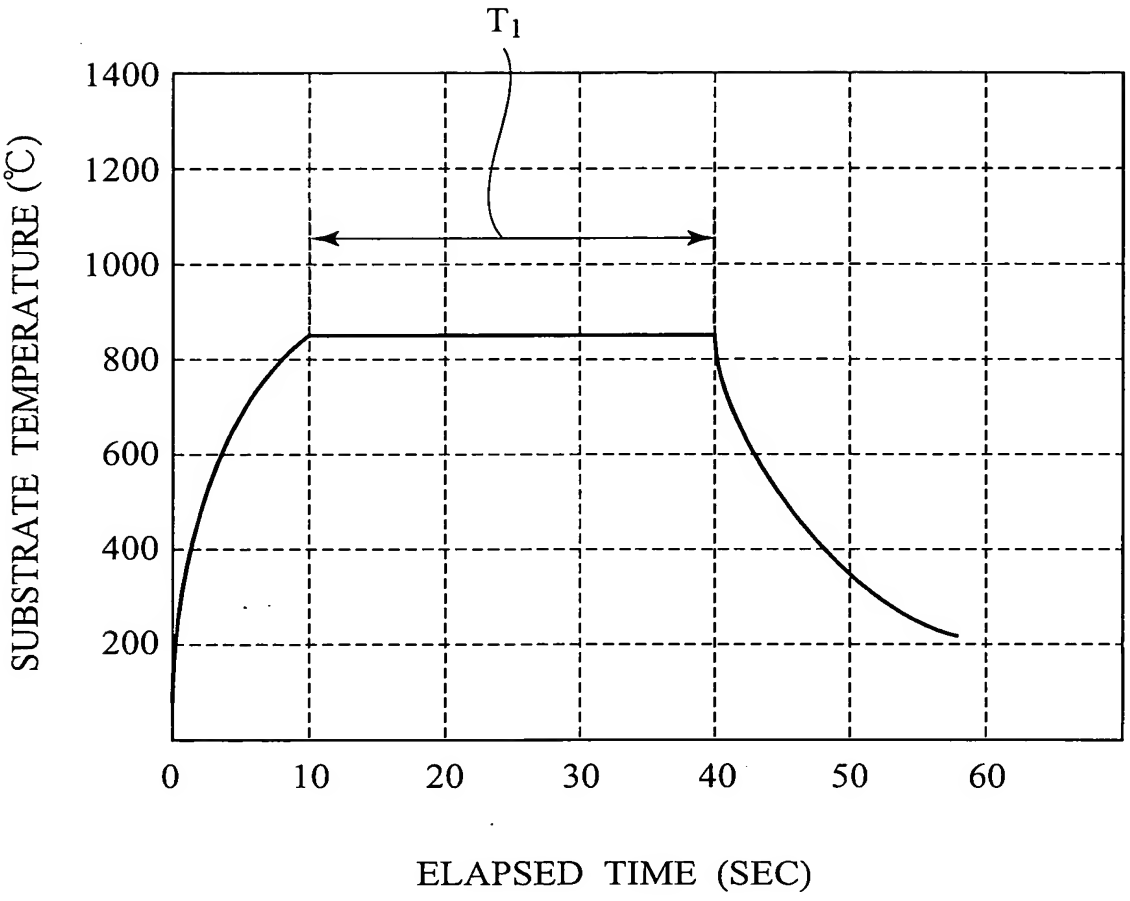
T1
1400
1200
1000
800
600
400
200
SUBSTRATE TEMPERATURE (℃)
0
10
20
30
40
50
60
ELAPSED TIME (SEC)

FIG. 6

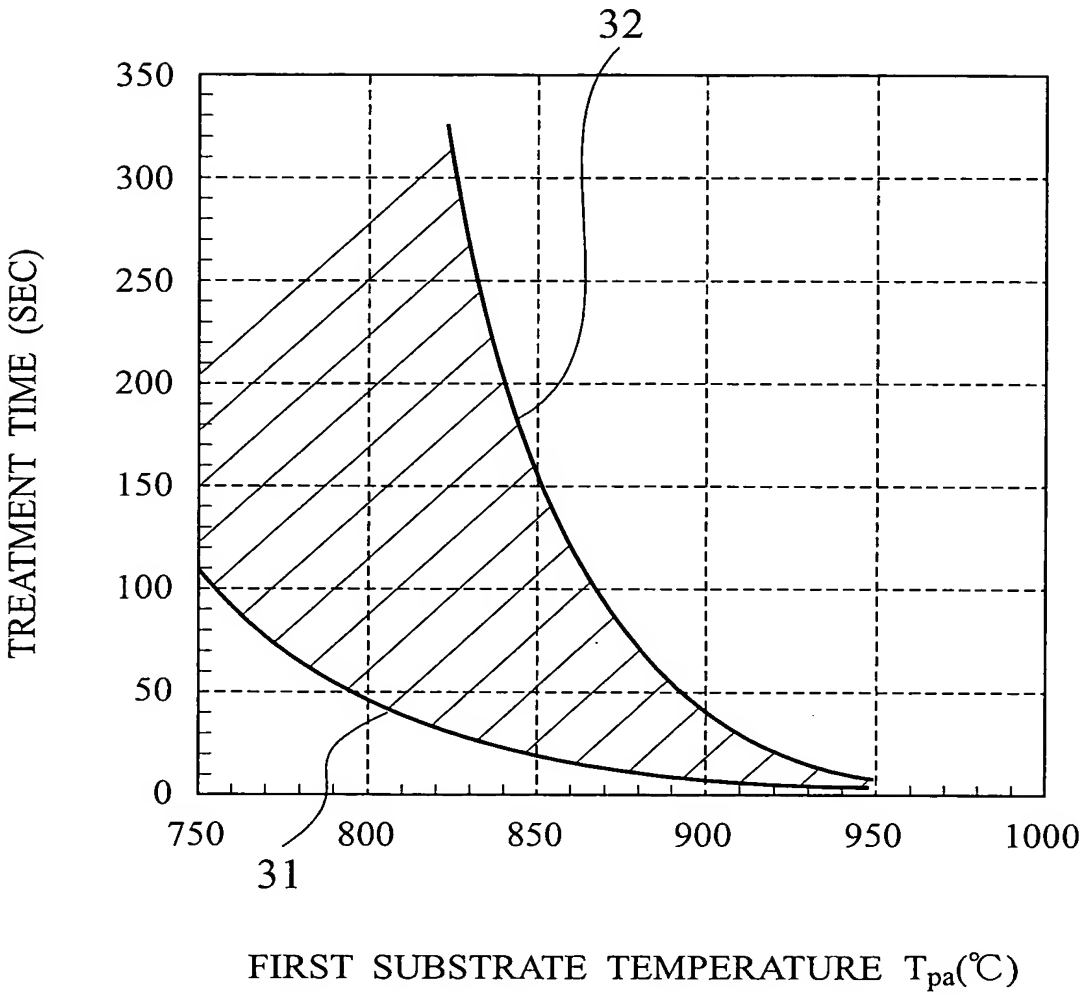
32
350
300
250
200
150
100
50
0
TREATMENT TIME (SEC)
750
800
850
900
950
1000
31
FIRST SUBSTRATE TEMPERATURE T_{pa}(℃)

FIG. 7

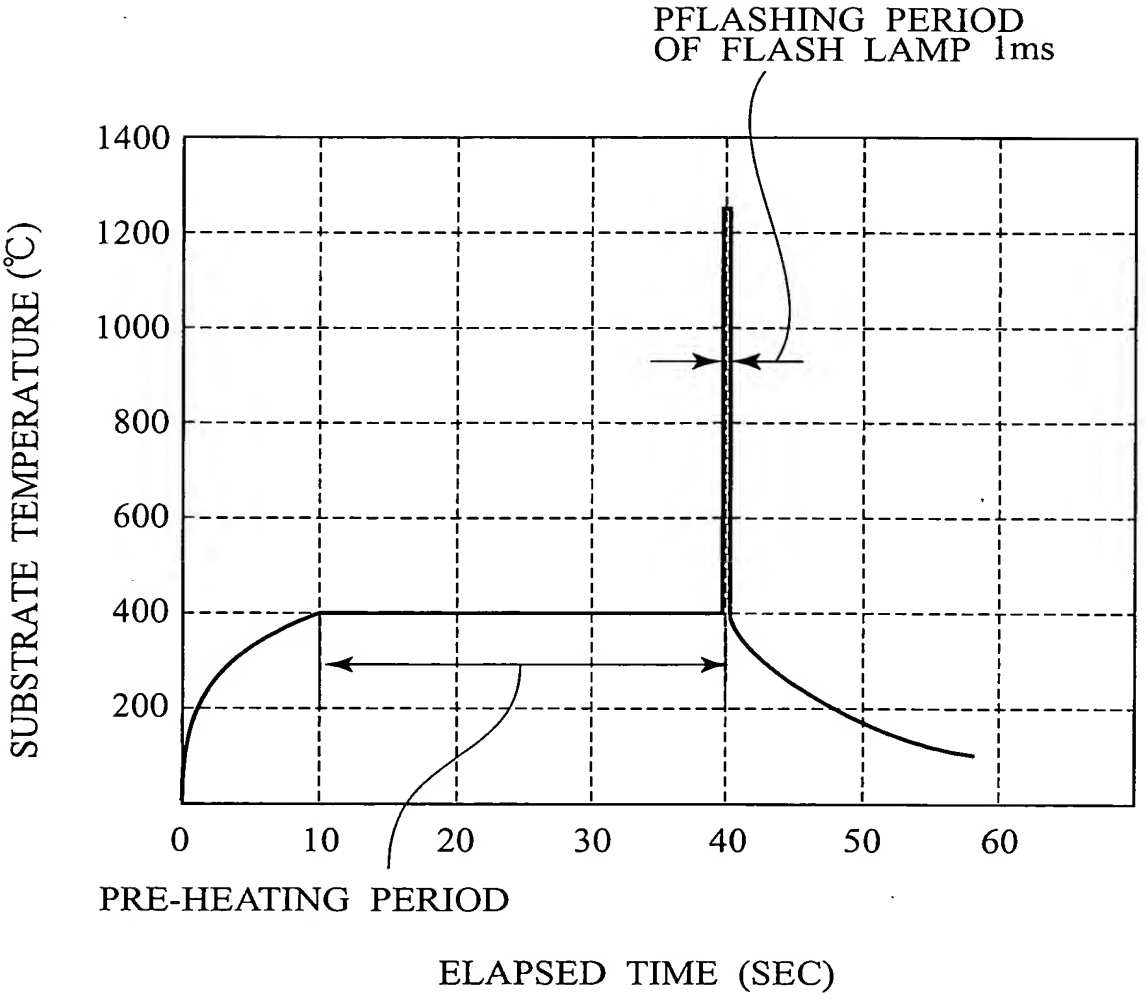
PFLASHING PERIOD
OF FLASH LAMP 1ms
1400
1200
1000
800
600
400
200
SUBSTRATE TEMPERATURE (℃)
0
10
20
30
40
50
60
PRE-HEATING PERIOD
ELAPSED TIME (SEC)

FIG. 8A

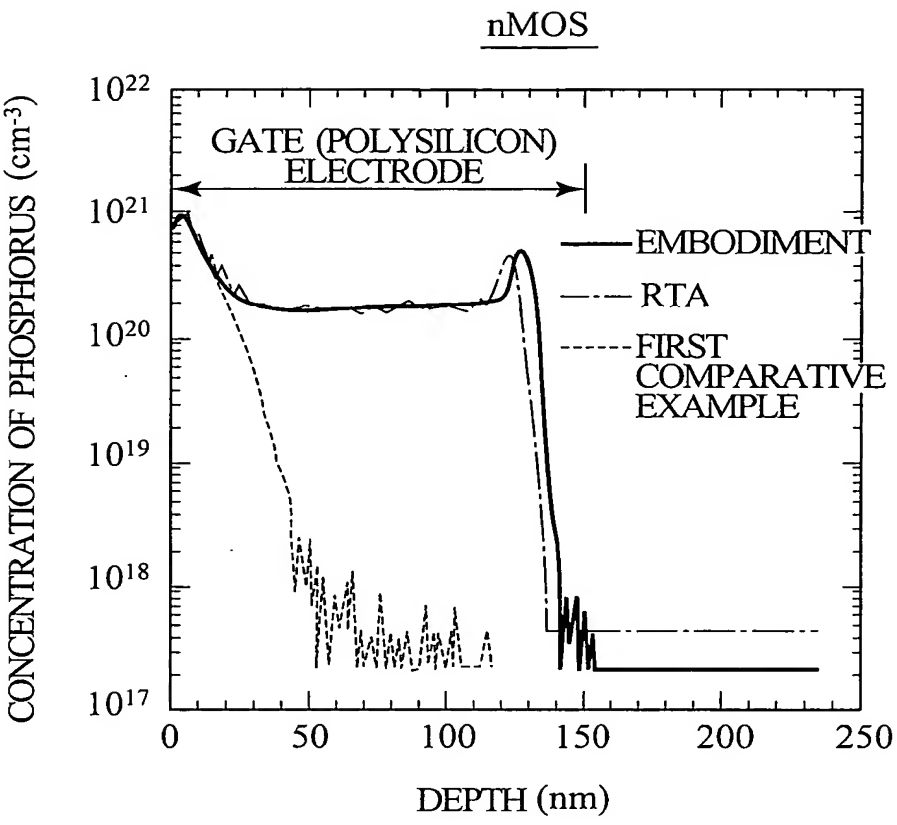
nMOS
GATE (POLYSILICON) ELECTRODE
EMBODIMENT
RTA
FIRST COMPARATIVE EXAMPLE
CONCENTRATION OF PHOSPHORUS (cm-3)
10^22
10^21
10^20
10^19
10^18
10^17
0
50
100
150
200
250
DEPTH (nm)

FIG. 8B

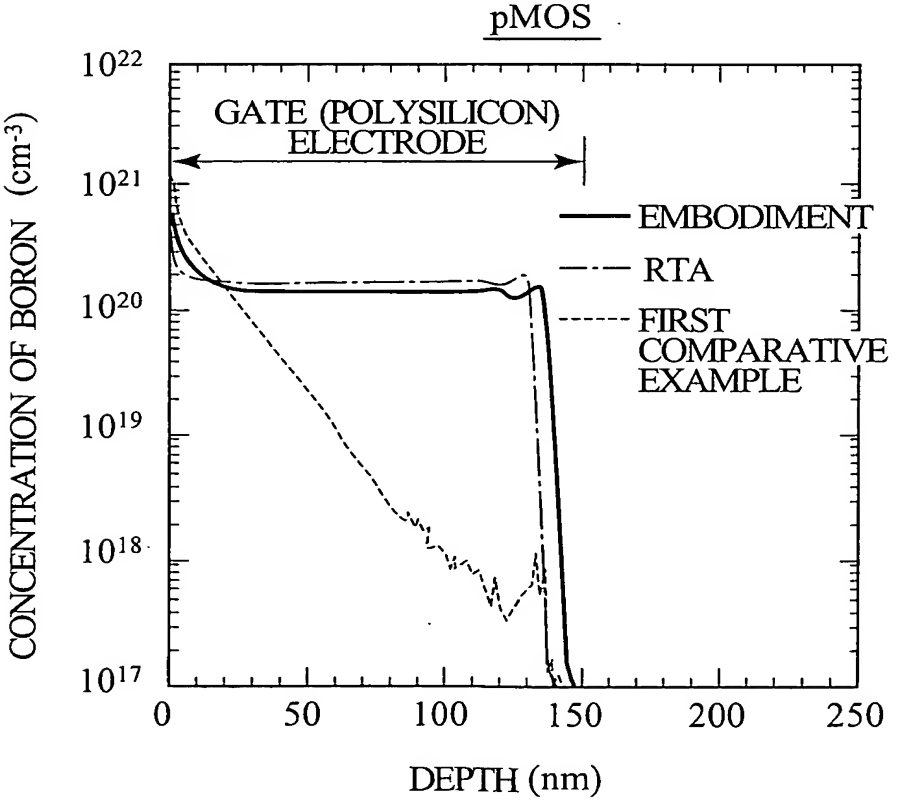
pMOS
GATE (POLYSILICON) ELECTRODE
EMBODIMENT
RTA
FIRST COMPARATIVE EXAMPLE
CONCENTRATION OF BORON (cm-3)
10^22
10^21
10^20
10^19
10^18
10^17
0
50
100
150
200
250
DEPTH (nm)

FIG. 9A

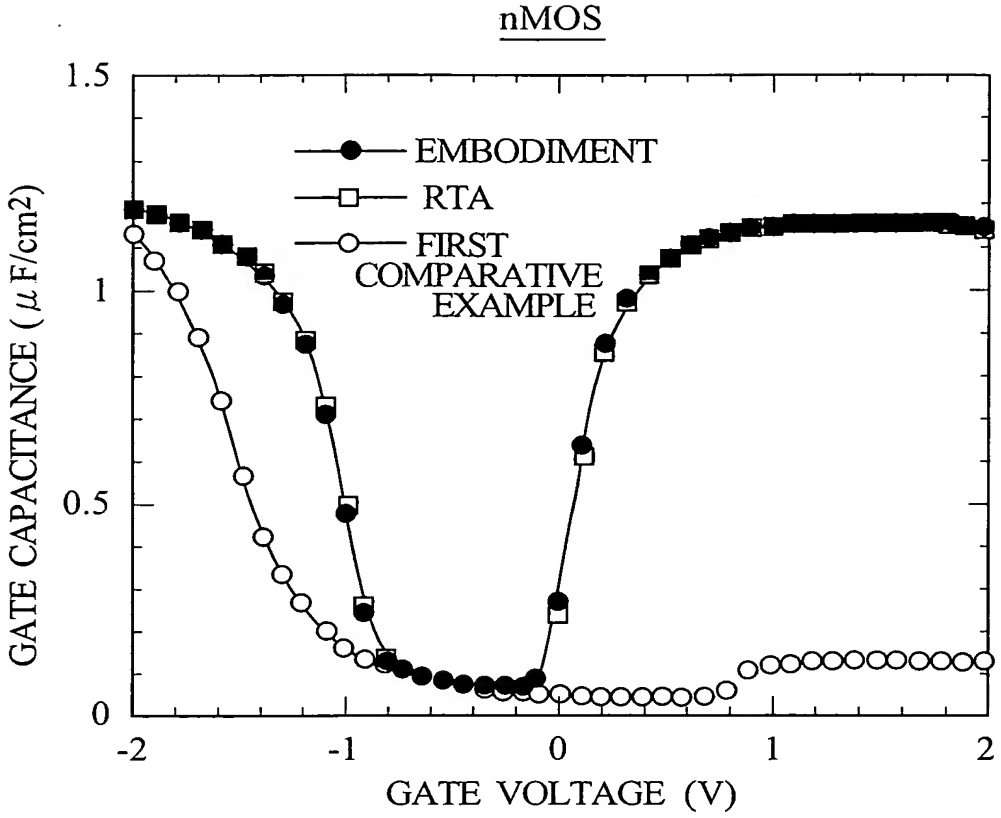
nMOS
1.5
1
0.5
0
-2
-1
0
1
2
GATE CAPACITANCE (μ F/cm2)
GATE VOLTAGE (V)
EMBODIMENT
RTA
FIRST COMPARATIVE EXAMPLE

FIG. 9B

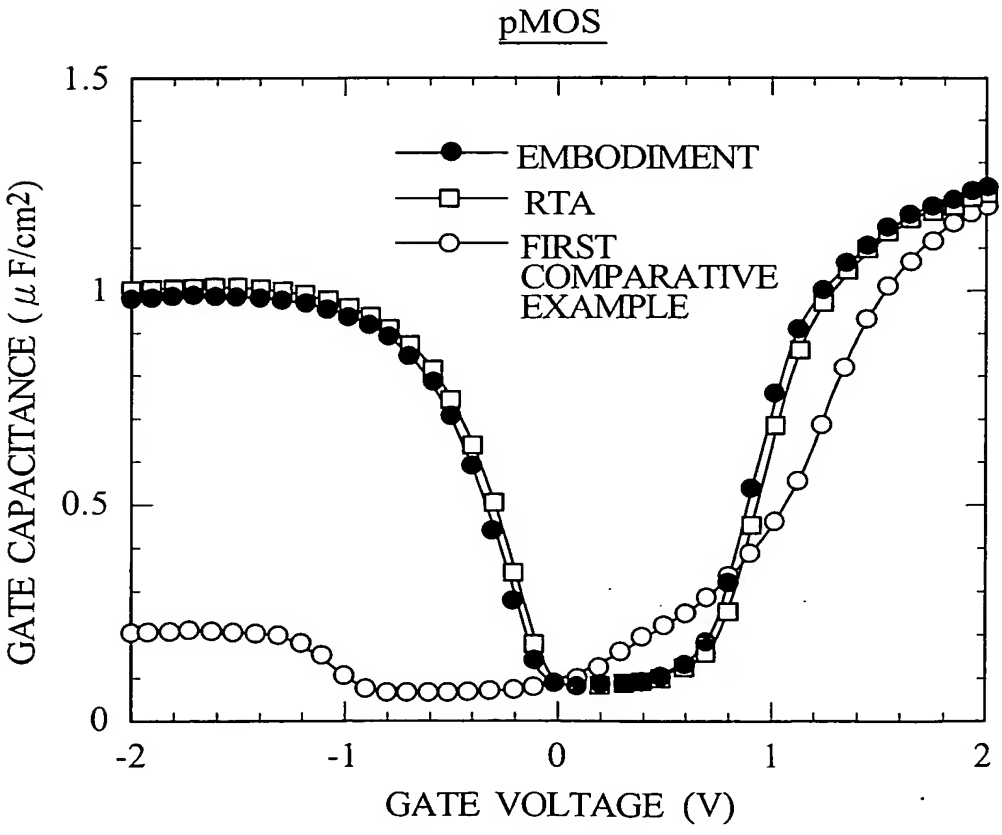
pMOS
1.5
1
0.5
0
-2
-1
0
1
2
GATE CAPACITANCE (μ F/cm2)
GATE VOLTAGE (V)
EMBODIMENT
RTA
FIRST COMPARATIVE EXAMPLE

FIG. 10A

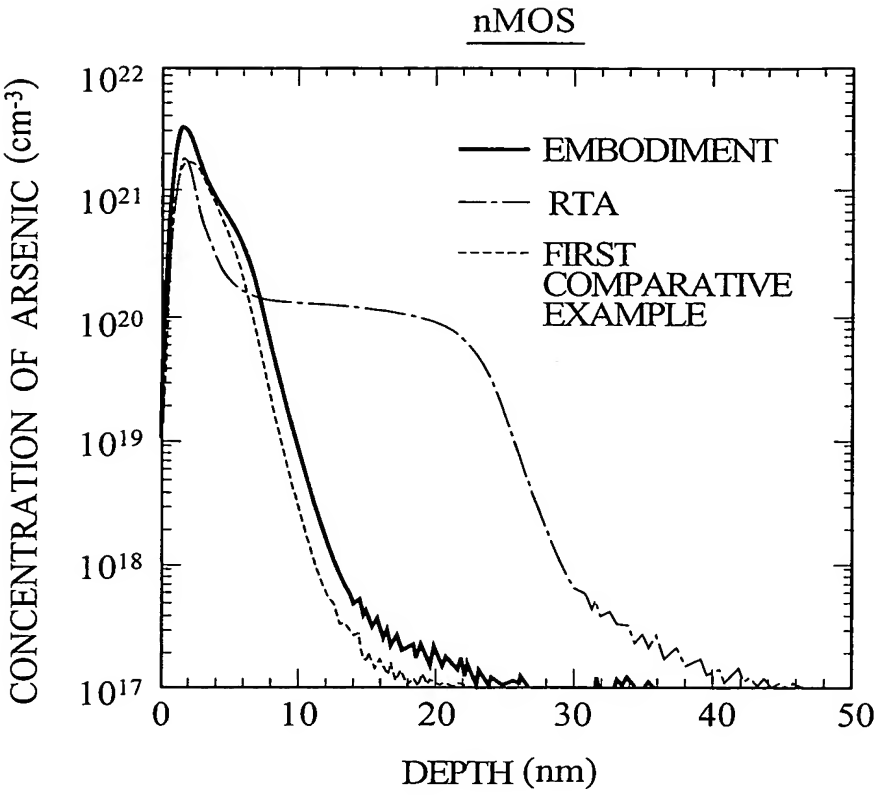

FIG. 10B

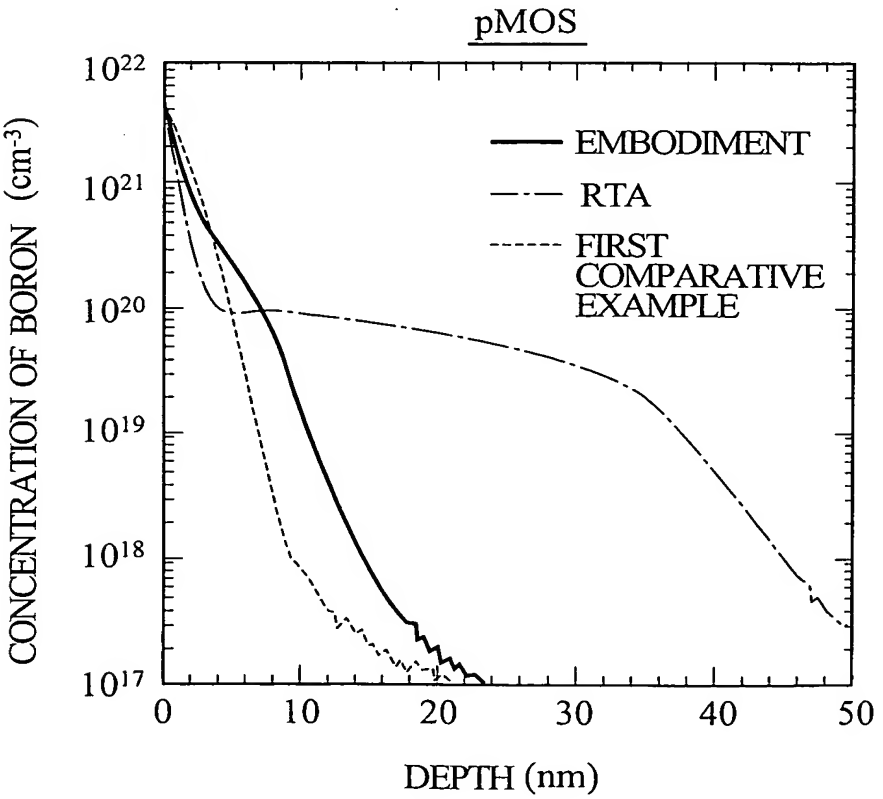

FIG. 11A

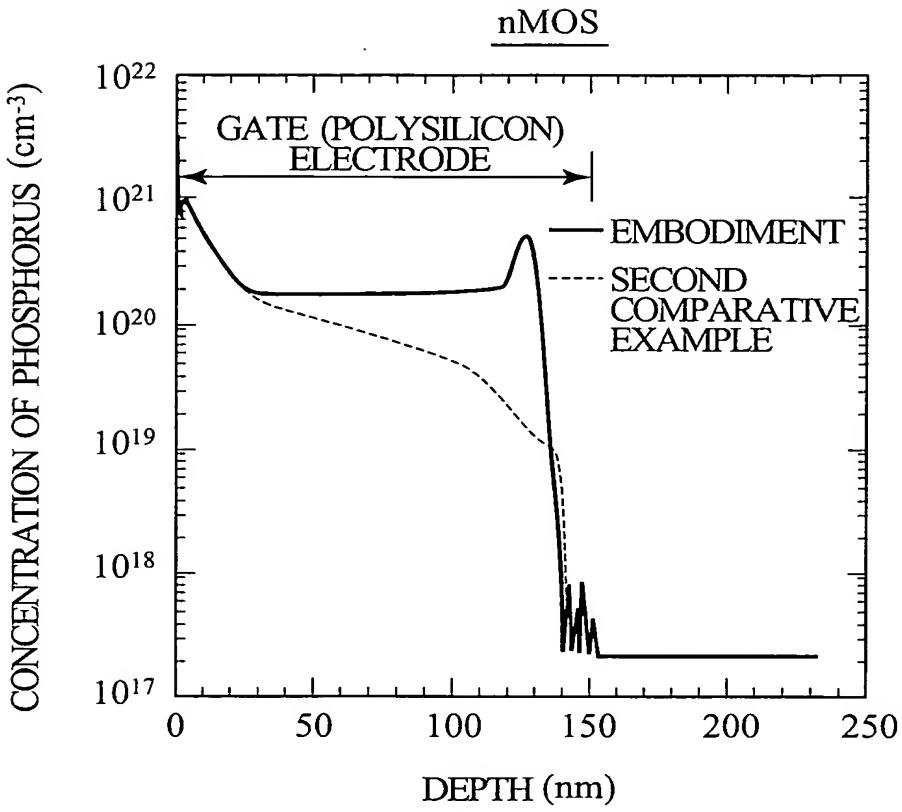

FIG. 11B

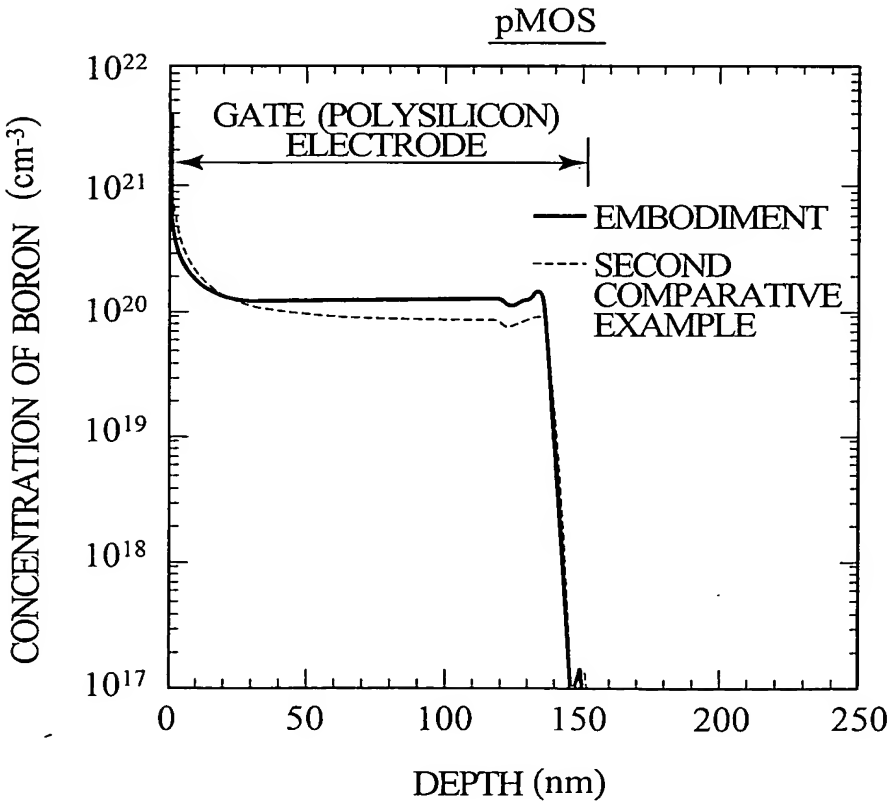

FIG. 12A

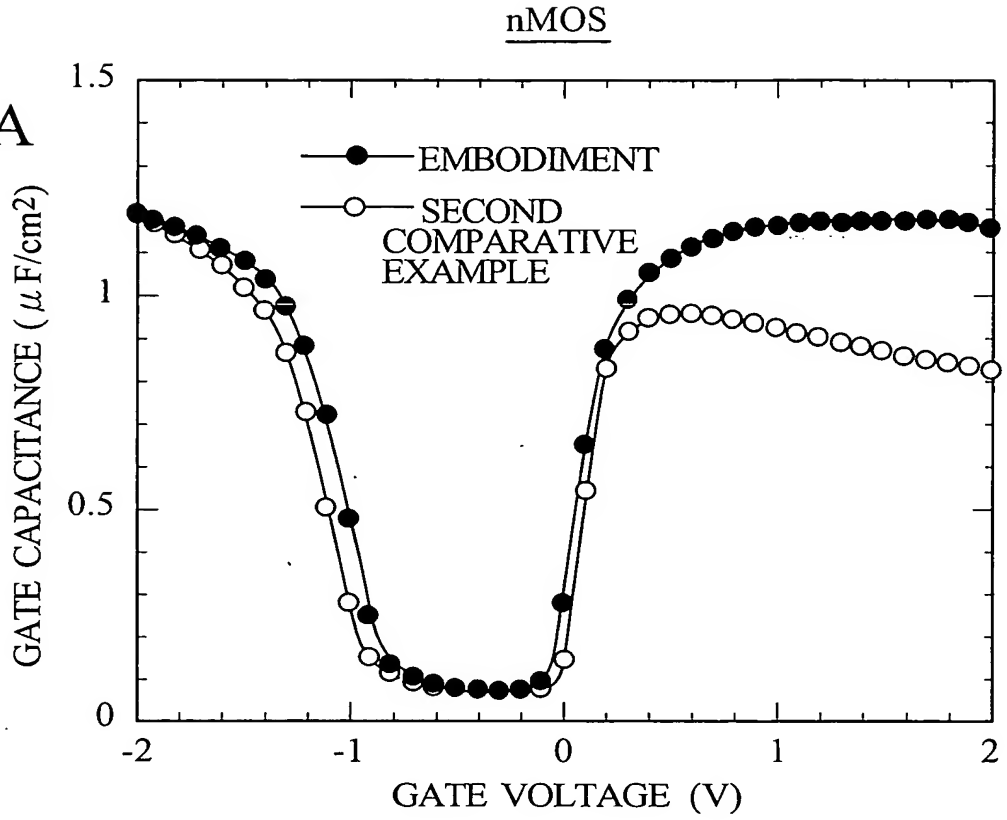

FIG. 12B

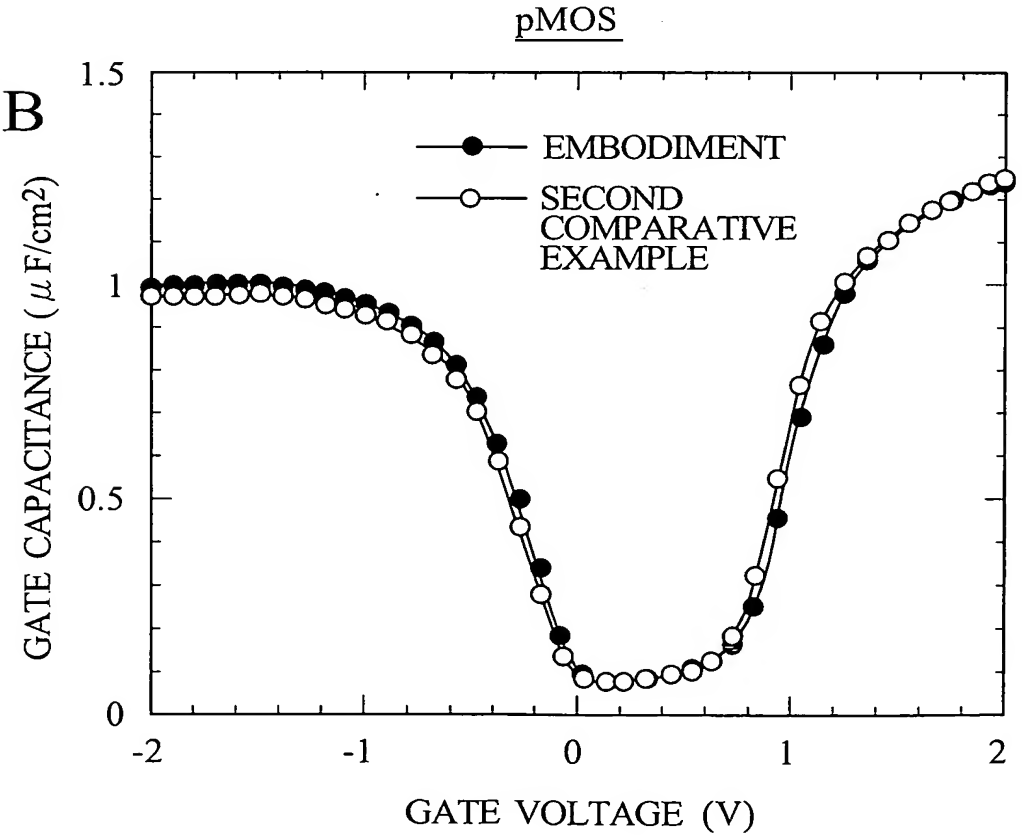

FIG. 13